SONY

3-798-919-21(1)

Cassette-Corder

Operating Instructions

TCM-313/353V/359V/354VK

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Owner's Record

The model number is located at the bottom and the serial number is located inside the cassette holder. Record the model and serial numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No._____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Welcome!

Thank you for purchasing the Sony Cassette-Corder.
Some features are:

- VOR (Voice Operated Recording) system (TCM-353V/359V/354VK only) that starts and stops recording automatically in response to the sound, to save tapes and batteries.
- SPEED CONTROL function that lets you increase or decrease the tape playback speed (TCM-353V/359V/354VK only).
- Three BATT lamps (including the REC/BATT lamp) indicate the battery condition step by step (TCM-359V only).

About This Manual

The instructions in this manual are for 4 models. The TCM-353V is the model used for illustration purposes. Their differences are shown in the table below:

	TAPE COUNTER	MIC jack	BATT lamp	VOR	MIC SENS
TCM-313	—	—	O	—	—
TCM-353V	—	O	O	O	—
TCM-359V	O	O	O (REC/BATT)	O	O
TCM-354VK	—	O	O	O	—

	SPEED CONTROL	Handstrap	Battery charge adaptor	Rechargeable batteries	AC power adaptor
TCM-313	—	—*	—	—	—
TCM-353V	O	O	—	—	—
TCM-359V	O	O	—	—	—
TCM-354VK	O	O	O	O	O

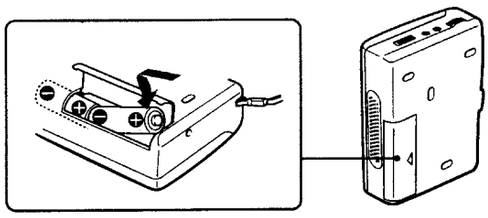
O: provided or supplied —: not provided or not supplied
* You can pass a strap (not supplied) through the hole on the bottom of the unit and use it as the handstrap.

Preparing a Power Source

Choose one of the following power sources.

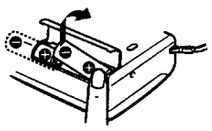
Dry Batteries

Make sure that nothing is connected to the DC IN 3V jack.

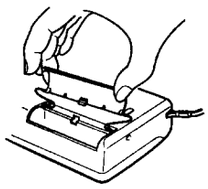


1 Open the battery compartment lid.
2 Insert two size AA (R6) batteries (not supplied) with correct polarity and close the lid.

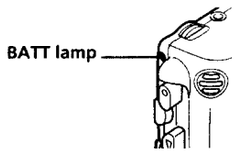
To take out the batteries



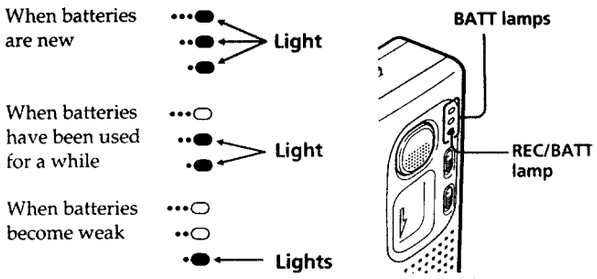
To attach the battery compartment lid if it is accidentally detached



When to replace the batteries
For TCM-313/353V/354VK:
Replace the batteries with new ones when the BATT lamp dims.



For TCM-359V: Replace the batteries with new ones when the REC/BATT lamp (•○) dims.



Notes

- TCM-359V only: In some cases when the unit is used with rechargeable batteries, only the (•○) REC/BATT and (••○) BATT lamps will light even though the batteries have been fully charged.
- After the batteries have been used for a while, the BATT lamp(s) may flicker with the playback sound when you turn up the volume; however, this does not mean that you need to replace the batteries.
- The unit will play back normally for a while even after the BATT (TCM-313/353V/354VK) lamp or the REC/BATT (TCM-359V) lamp dims. However, replace the batteries as soon as you can. If you do not, subsequent recording will not be done correctly.

Battery life (Approximate hours)

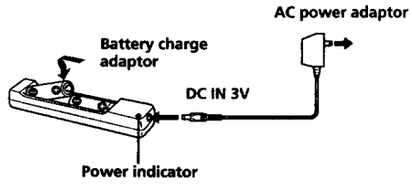
	Playback	Recording
Sony alkaline AM3 (N)	11	11
Sony SUM-3 (NS)	3	3

Notes

- Do not charge a dry battery.
- Do not use a new battery with an old one.
- Do not use different types of batteries.
- When you do not use the unit for a long time, remove the batteries to avoid any damage caused by battery leakage and subsequent corrosion.
- Dry batteries will not be expended when another power source is connected.

Rechargeable Batteries (supplied to TCM-354VK only)

Before using the rechargeable batteries, charge them with the supplied battery charge adaptor and AC power adaptor.



1 Insert the rechargeable batteries (NC-AA) into the battery charge adaptor with correct polarity.
2 Connect the AC power adaptor (supplied to TCM-354VK) to the DC IN 3V jack of the battery charge adaptor and to the wall outlet.
The power indicator lights up.
3 Unplug the AC power adaptor from the wall outlet and from the battery charge adaptor after about eight hours.

Notes

- The power indicator lights in green as long as the AC power adaptor is plugged to the wall outlet and the DC IN 3V jack, even when the charging has not been done.
- Use only the supplied or recommended AC power adaptor, battery charge adaptor and rechargeable batteries.
- Do not leave the battery charge adaptor plugged in for more than 20 hours. Overcharging may damage the rechargeable batteries.

Battery life (Approximate hours)

	Playback	Recording
Sony rechargeable battery (NC-AA) fully charged	4	3

House Current

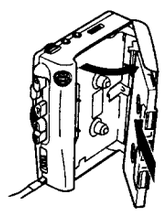
Connect the AC power adaptor to DC IN 3V and to the wall outlet. The AC power adaptor is supplied only with the TCM-354VK. For other models, use the AC-E30HG AC power adaptor (not supplied). Do not use any other AC power adaptor.

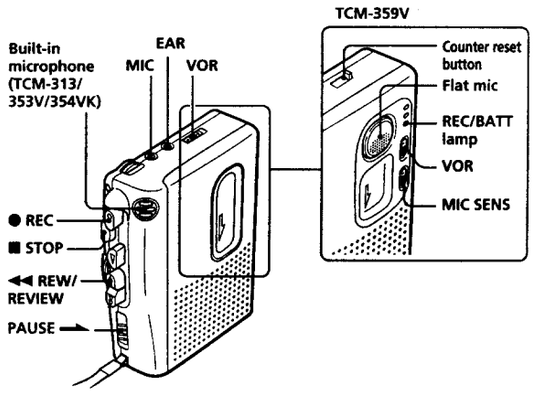
Polarity of the plug

▶ *Operating the Unit*

Recording

You can record right away with the built-in microphone.
Make sure that nothing is connected to the MIC jack (TCM-353V/359V/354VK only).





1 Press the counter reset button to reset the tape counter (TCM-359V only).

2 Insert a normal (TYPE I) tape with the side to start recording facing the cassette holder.

3 For TCM-313: Skip this step.
For TCM-353V/354VK: Set VOR to: H or L to start and pause recording automatically to the sound.
H (high) to record at meetings or in a quiet and/or spacious place.
L (low) to record for dictation or in a noisy place.
OFF to start and stop recording manually.
For TCM-359V:
1 Set VOR to:
ON to start and pause recording automatically to the sound.
OFF to start and stop recording manually.
2 Set MIC SENS to select the sensitivity of the microphone to:
H (high) to record at meetings or in a quiet and/or spacious place.
L (low) to record for dictation or in a noisy place.

Note

When the sound to be recorded is not loud enough, set the VOR switch to OFF, or the unit may not start recording.

4 Press ● REC.
Recording starts.
For TCM-359V: Place the unit on a hard surface such as a desk with the cassette holder side up so that the flat mic can record effectively.While the tape runs, the REC/BATT lamp lights and flickers depending on the strength of the sound.

At the end of the tape, recording stops and the unit turns off automatically.

To	Press or slide
Stop recording	■ STOP
Pause recording	PAUSE ⟶ in the direction of the arrow
Review the portion just recorded	Press and hold ◀◀ REW/REVIEW during recording. Release the button at the point to start playback.

To monitor the sound

Connect an earphone (not supplied) firmly to the EAR jack.

Notes

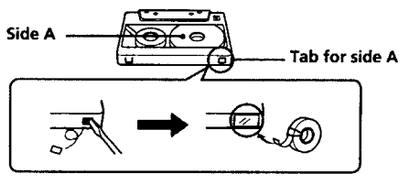
- Do not use a CrO_2 (TYPE II) or metal (TYPE IV) tape, otherwise the sound may be distorted when you play back the tape, or the previous recording may not be erased completely.
- The SPEED CONTROL switch works in the playback mode only. Recording will be made independent of this control (TCM-353V/359V/354VK only).

Notes on VOR (Voice Operated Recording)

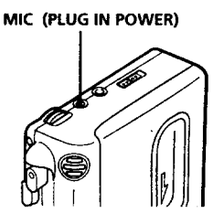
- When you use the VOR system in a noisy place, the unit will stay in the recording mode. If the sound is too soft, on the contray, the unit will not start recording. Set MIC SENS (TCM-359V) or VOR (TCM-353V/354VK) to H (high) or L (low) depending on the conditions to pick up necessary sound only.
- The VOR system depends on the environmental conditions. If you cannot get the desired results even though you adjust MIC SENS (TCM-359V) or VOR (TCM-353V/354VK), set VOR to OFF.

To prevent a tape from being accidentlly recorded over

Break out and remove the cassette tabs. To reuse the tape for recording, cover the tab hole with adhesive tape.



Recording from Various Sound Sources (TCM-353V/359V/354VK only)



Recording with an External Microphone

Connect a microphone to the MIC jack. The raise dot near the MIC jack identifies as the jack for a microphone, not an earphone. Use a microphone of low impedance (less than 3 kilohms) such as ECM-T10 (not supplied).

When using a plug-in-power system microphone, the power to the microphone is supplied from this unit.

Note

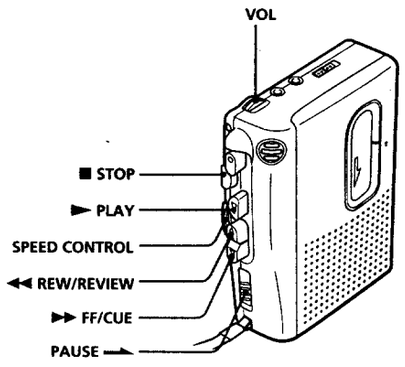
When recording with an external microphone, the VOR system may not work properly because of the difference in sensitivity.

Recording from Another Equipment

Connect another equipment to the MIC jack using the RK-G64HG connecting cord (not supplied).

Continue to the reverse side ➔

Playing a Tape



1 Insert a cassette with the side to start playing facing the cassette holder.

2 For TCM-313: Skip this step.
For TCM-353V/359V/354VK: Adjust the tape playback speed.
Set SPEED CONTROL to:
S (slow) to play back a tape slower.
Center position to playback a tape at normal speed.
F (fast) to playback a tape faster.

3 Press ► PLAY then adjust the volume. There is a raised dot to show the direction to turn down volume beside VOL.

At the end of the tape, playback stops and the unit turns off automatically.

To	Press or slide
Stop playback/stop fast forward or rewind*	■ STOP
Pause playback	PAUSE in the direction of the arrow
Search forward during playback (CUE)	Press and hold ►► FF/CUE and release it at the point you want
Search backward during playback (REVIEW)	Press and hold ◄◄ REW/REVIEW and release it at the point you want
Fast forward	►► FF/CUE during stop
Rewind	◄◄ REW/REVIEW during stop
Start recording during playback	● REC

* If you leave the unit after the tape has been wound or rewound, the batteries will be consumed rapidly. Be sure to depress ■ STOP.

▶ *Additional Information*

Precautions

On power

- Operate the unit only on 3V DC. For AC operation, use the AC power adaptor recommended for the unit. Do not use any other type. For battery operation, use two size AA (R6) batteries.
- The nameplate indicating operating voltage, etc., is located on the bottom of the unit.

On the unit

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries or disconnect the AC power adaptor, and have the unit checked by qualified personnel before operating it any further.
- Keep personal credit cards using magnetic coding or spring-wound watches etc. away from the unit to prevent possible damage from the magnet used for the speaker.
- If the unit has not been used for a long time, set it in the playback mode and warm it up for a few minutes before inserting a tape.

On tapes longer than 90 minutes

We do not recommend the use of tapes longer than 90 minutes except for a long continuous recording or playback. They are very thin and tend to be stretched easily.

For the customers in the USA and Canada

RECYCLING NICKEL-CADMIUM BATTERIES
(Supplied to TCM-354VK only)

NICKEL-CADMIUM BATTERY.
MUST BE DISPOSED OF PROPERLY.

Ni-Cd

Nickel-Cadmium batteries are recyclable. You can help preserve our environment by returning your unwanted batteries to your nearest Sony Service Center or Factory Service Center for collection, recycling or proper disposal.

Note: In some areas the disposal of nickel-cadmium batteries in household or business trash may be prohbited.

For the Sony Service Center nearest you call 1-800-222-SONY (United States only)
For the Factory Service Center nearest you call 416-499-SONY (Canada only)

Caution: do not handle damaged or leaking nickel-cadmium batteries.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

Troubleshooting

Should any problem persist after you have made these checks, consult your nearest Sony dealer.

You cannot press ● REC.

→ The tab on the tape has been removed.

You cannot press ► PLAY.

→ The tape has reached the end. Rewind the tape.

The unit does not operate.

→ The batteries have been inserted with incorrect polarity.
→ The batteries are weak.
→ PAUSE ▬ is slid in the direction of the arrow.
→ The AC power adaptor or car battery cord is not firmly connected.
→ The batteries have been inserted, but simultaneously the AC power adaptor is connected and not to be done to the wall outlet.

No sound comes from the speaker.

→ The earphone is plugged in.
→ The volume is turned down completely.

Tape speed is too fast or too slow in the playback mode.

→ SPEED CONTROL (TCM-353V/359V/354VK only) is set at a point other than the center.

The sound drops out or comes with excessive noise.

→ The volume is turned down completely.
→ The batteries are weak.
→ The heads are contaminated. See "Maintenance."

Recording cannot be made.

→ Connection is made incorrectly.
→ The batteries are weak.
→ The record/playback head is contaminated.
→ VOR (TCM-353V/354VK) or MIC SENS (TCM-359V) has been set to the improper position when VOR function works.

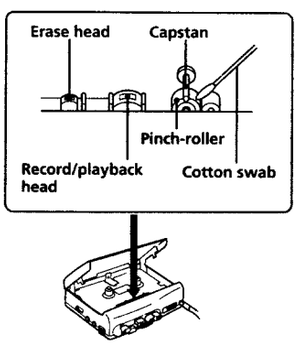
Recording is interrupted.

→ VOR is set to H or L (TCM-353V/354VK) or ON (TCM-359V). When you do not use VOR, set it to OFF.

Recording cannot be erased completely.

→ The erase head is contaminated.
→ Recording or erasing is being made using recorded CrO_2 (TYPE II) or metal (TYPE IV) tape.

Maintenance



To clean the tape heads and path

Wipe the heads, pinch rollers, and the capstans with a cotton swab moistened with alcohol every 10 hours of use.

To clean the exterior

Use a soft cloth slightly moistened in water. do not use alcohol, benzine or thinner.

Specifications

Recording system
2-track 1 channel monaural

Frequency range
250 - 6,300 Hz

Speaker
Approx. 3.6 cm (1 7/16 in.) dia.

Power output
130 mW (at 10 % harmonic distortion)

Input (TCM-353V/359V/354VK)
Microphone input jack (minijack) sensitivity 0.2 mV for 3 kilohms or lower impedance microphone

Output
Earphone jack (minijack) for 8 - 300 ohms earphone

Variable range of the tape speed (TCM-353V/359V/354VK)
from +30% to –20%

Power requirements
- Two size AA (R6) batteries (not supplied): 3V DC
- Two NC-AA rechageable batteries (1.2 V) (supplied to TCM-354VK) DC IN 3 V jack accepts:
- Sony AC power adaptor (supplied to TCM-354VK) or AC-E30HG AC power adaptor (not supplied) for use on 120 V AC, 60 Hz
- Sony DCC-E130L car battery cord (not supplied) for use on 12 V car battery.

Dimensions (w/h/d) (incl. projecting parts and controls)

TCM-313:	Approx. 112 × 91 × 36.5 mm (4½ × 3⅝ × 1 7/16 in.)
TCM-353V:	Approx. 112 × 91 × 36.5 mm (4½ × 3⅝ × 1 7/16 in.)
TCM-359V:	Approx. 114 × 91 × 38 mm (4½ × 3⅝ × 1½ in.)
TCM-354VK:	Approx. 112 × 91 × 36.5 mm (4½ × 3⅝ × 1 7/16 in.)

Mass (not incl. batteries)

TCM-313:	Approx. 170 g (6.0 oz.)
TCM-353V:	Approx. 170 g (6.0 oz.)
TCM-359V:	Approx. 185 g (6.6 oz.)
TCM-354VK:	Approx. 170 g (6.0 oz.)

Supplied accessories
AC power adaptor (1) (TCM-354VK)
Battery charge adaptor (1) (TCM-354VK)
Rechargeable batteries (2) (TCM-354VK)

Design and specifications are subject to change without notice.

r the customers in the U.S.A.

SONY®

Tape Cassette Player/Recorder/CD Player/Mini Disc
DAT/Radio/Head Phone/Speaker/MIC/Personals

Portable Audio

LIMITED WARRANTY

SONY ELECTRONICS INC. ("SONY") warrants this Product (including any accessories) against defects in material or workmanship as follows:

1. LABOR: For a period of 90 days from the date of purchase, if this Product is determined to be defective, Sony will repair the Product at no charge, or pay the labor charges to any SONY authorized service facility. After the Warranty Period, you must pay for all labor charges.

2. PARTS: In addition, SONY will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year. After 90 days from the date of purchase, labor for removal and installation is available from SONY authorized service facilities or a Sony Service Center at your expense.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in either its original packaging or packaging affording an equal degree of protection, to any authorized SONY service facility.

This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product, including the antenna. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a facility authorized by Sony to service the Product. This warranty does not cover Products sold AS IS or WITH ALL FAULTS, or consumables (such as fuses or batteries). This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. In addition, if you enter into a service contract with the Sony Partnership within 90 days of the date of sale, the limitation on how long an implied warranty lasts does not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For your convenience, SONY ELECTRONICS INC. has established telephone numbers for frequently asked questions:

To locate the servicer or dealer nearest you, call:

1-(800)-342-5721

For service assistance or resolution of a service problem, call:

SONY CUSTOMER RELATIONS CENTER
1-(800)-282-2848

For Product information or operation, call:

SONY CUSTOMER INFORMATION CENTER
(201)-368-9272
or write to:
Sony Customer Information Center
One Sony Drive
Park Ridge, New Jersey 07656-8003

For an accessory or part not available from your authorized dealer, call:

1-(800)-488-SONY (7669)